Indiana Department of Environmental Management
Office of Air Management
Rule Fact Sheet
August 2, 2000

DEVELOPMENT OF NEW RULES AND AMENDMENTS TO RULES CONCERNING INDIANA NITROGEN OXIDES REDUCTION REQUIREMENTS #98-235(APCB)

Overview

Adds 326 IAC 10-0.5-1 concerning general definitions for nitrogen oxide rules and 326 IAC 10-2 concerning statewide nitrogen oxide reductions requirements. Amends 326 IAC 10-1-1 concerning applicability under the rule for nitrogen oxides control in Clark and Floyd counties. Repeals 326 IAC 10-1-2 concerning definitions for nitrogen oxides control in Clark and Floyd counties.

Citations Affected

Adds: 326 IAC 10-0.5-1, 326 IAC 10-2
Amends: 326 IAC 10-1-1
Repeals: 326 IAC 10-1-2

Affected Persons

Electric utilities, sources with large industrial boilers, citizens of Indiana

Potential Cost

The rule will require sources to install additional control and monitoring devices throughout Indiana. IDEM has prepared a fiscal impact analysis summarizing the potential costs. The analysis is available at www.state.in.us/idem/oam/standard/Sip/index.html

Outreach

Since January 1999, IDEM has held numerous meetings to discuss the NOx SIP call and Indiana's NOx reduction rules. These meetings have provided industry, environmental groups, local steering committees, and other state agencies an opportunity to comment on this rulemaking.

Description

This rule would require significant reductions of NOx from electric utilities and large industrial boilers and will significantly improve air quality in Indiana. NOx is one of the key pollutants that form urban smog or ozone. These reduction requirements, which will reduce NOx between 42% to 54%, or 77,039 to 97,019 tons (based on 2007 emissions), are a key element of Indiana's attainment plan for its two ozone nonattainment areas (Clark/Floyd Counties and Lake/Porter Counties) and will greatly improve air quality throughout the entire state, especially during the summer.

Background

Indiana, like most states in the eastern half of the United States, has been working to reduce summertime ozone levels for more than twenty years. Significant process has been made, but even in recent years, ozone levels in both metropolitan and rural areas have exceeded state and federal health standards. Over the years, Indiana and many other states have implemented numerous clean air programs, affecting motor vehicles, industrial sources and other common activities, in the urban areas where ozone pollution has been most severe. These local

reductions, mostly of volatile organic compounds (VOCs), have been effective in improving air quality. Work has continued to evaluate the most cost effective ways to continue progress towards meeting the health standard. State and federal scientists have determined that the most effective approach at this time is geographically broad, regional reductions of NO_x.

On September 24, 1998, U.S. EPA issued a rule (NO_x SIP call) that required each of twenty-two (22) states in the eastern United States, including Indiana, to reduce its emissions of nitrogen oxides significantly by 2007. The federal rule required electric utility boilers, large industrial boilers, cement kilns and stationary internal combustion engines to reduce emissions by 116,463 tons by 2007. The rule is intended to reduce the transport of ozone and ozone causing pollutants that occurs in this multi-state region.

When U.S. EPA first proposed the NO_x SIP call, IDEM submitted comments concerning the stringency of the controls proposed by U.S. EPA. In the comments, IDEM indicated that work completed by the Ozone Transport Assessment Group (an organization of thirty-seven (37) eastern and midwestern states, U.S. EPA, and many other public and private entities) suggested that controlling electric utility system boilers and large industrial boilers to a less stringent emission limit than the NO_x SIP call would reduce ozone transport and assist with attainment of the ozone standard in Indiana. Technical work done by Indiana also supported this conclusion. The controls for additional source categories, as proposed in the NO_x SIP call, will not be included until studies were completed to determine the amount of additional reductions that might be needed and the feasibility of reducing the emissions from these source categories.

In light of Indiana's view that the federal rule went further than necessary to address the one hour ozone standard, on November 1, 1998, IDEM published a First Notice of Comment Period requesting comment on the direction that IDEM should pursue in responding to the NO_x SIP call. The agency received numerous comments from various industries and groups and proceeded to develop draft rule language. On May 1, 1999, IDEM published a Second Notice of Comment Period. The draft rule language identified various options concerning regulated source categories and emission limitations. IDEM received numerous comments concerning the options presented including comments concerning the lack of specificity with the rule language.

On May 25, 1999, the U.S. Court of Appeals for the D.C. Circuit issued a stay of the deadline to respond to the NO_x SIP call until further order of the court. On March 3, 2000, the court rendered a decision upholding the NO_x SIP call. A First Notice of Comment Period beginning the rulemaking to respond to the NO_x SIP call was published on July 1, 2000 in the Indiana Register (23 IR 2606). However, IDEM is moving forward with this rulemaking to address nonattainment in Indiana.

There are several areas within Indiana that do not currently meet the 1 hour ozone health standard. The Clean Air Act and U.S. EPA guidance require that Indiana develop and implement plans to bring air quality in those areas into attainment with the health standard. For Clark and Floyd counties, the attainment date is 2003. For Lake and Porter counties, the attainment date is 2007 and the attainment plan must be submitted to U.S. EPA by December 2000.

In addition to addressing Indiana's ozone nonattainment areas, the NO_x reductions called for in this rule will assist in reducing ozone transport outside of Indiana. The work done by the Ozone Transport Assessment Group indicated that the transport of ozone across state boundaries can affect nonattainment areas outside of the state. IDEM believes that it is important to lessen the contribution to any significant transport

from Indiana to neighboring states that could affect their ability to meet the 1 hour ozone standard. Due to the technical difficulty in assigning a specific amount of ozone pollution that is caused by an individual source, a statewide NO_x reduction approach is a more practical solution.

Indiana believes it must proceed with development of a NO_x control rule that achieves the reductions necessary to achieve attainment of the 1 hour ozone standard.

Summary of Rule Requirements

The draft rule will affect only utility boilers, combustion turbines, and combined cycle systems serving generators with a nameplate capacity greater than 25 MW and large industrial boilers with a heat input capacity greater than 250,000,000 Btu/hour. Electric utility units will be required to meet a limit of 0.25 lb/mmBtu and large industrial boilers will be required to meet a limit ranging from 0.4 to 0.2 lb/mmBtu depending on the fuel used. The rule will require NO_x reductions during the ozone season, May 1 through September 30 beginning in 2003. Compliance provisions have been included that allow sources flexibility in meeting the limits, such as emissions averaging and fuel switching.

Consideration of Factors Outlined in Indiana Code 13-14-8-4

Indiana Code 13-14-8-4 requires that in adopting rules and establishing standards, the board shall take into account the following:

1) All existing physical conditions and the character of the area affected.

2) Past, present, and probable future uses of the area, including the character of the uses of surrounding areas.

3) Zoning classifications.

4) The nature of the existing air quality or existing water quality, as appropriate.

5) Technical feasibility, including the quality conditions that could be reasonably be achieved through coordinated control of all factors affecting the quality.

6) Economic reasonableness of measuring or reducing any particular type of pollution.

7) The right of all persons to an environment sufficiently uncontaminated as not to be injurious to:

(A) human, plant animal, or aquatic life; or
(B) the reasonable enjoyment of life and property.

Consistency with Federal Requirements

The new and amended rules are consistent with federal laws and rules.

IDEM Contact

Additional information regarding this rulemaking action can be obtained by calling (800) 451-6027 (in Indiana), press 0 and ask for Roger Letterman, Rule Development Section, Office of Air Management, (or extension 2-8342) or dial (317) 232-8342.